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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,972	03/12/2004	Mathieu Gagne	E30-053CON	9037
34021	7590	08/24/2004	EXAMINER	
GEORGE A. HERBSTER 40 BEACH STREET SUITE 303 MANCHESTER, MA 01944			BONZO, BRYCE P	
			ART UNIT	PAPER NUMBER
			2114	

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/799,972	<b>Applicant(s)</b> GAGNE ET AL.	
	<b>Examiner</b> Bryce P Bonzo	<b>Art Unit</b> 2114	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 34-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/12/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **NON-FINAL OFFICIAL ACTION**

### *Status of the Claims*

Claims 1-33 are cancelled by Pre-Amendment.

Claims 34-44 are rejected under obvious-type double patenting.

Claims 34-44 are rejected under 35 USC §102.

### *Obvious-type Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 34-44 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12-22 of U.S. Patent No. 6,742,138. Although the conflicting claims are not identical, they are not patentably distinct from each other.

Patent claim 12 is reproduced below:

A data recovery program that restores data in *a first storage device with data from a second storage device* and updates the first storage device with data supplied from a host wherein each storage device comprises a plurality of tracks on a physical disk and communicates with a *storage buffer*, wherein the second storage device operates either in a first, write-enabled, mode for mirroring the first storage device or in a second mode isolated from the first storage device and wherein a track identification table for each of the first and second storage devices defines the status of the data in each track of the first and second storage devices, said data recovery program:

A) attaching the second storage device in a write-disabled state to the first storage device,

B) identifying tracks to be restored from the second storage device to the first storage device, and

C) initiating concurrent restoration and updating of the data by:

- i) copying the data from the identified tracks in the second data storage device to the storage buffer in response to the information in the first track identification table,
- ii) transferring update data received from the host to the buffer storage device, and
- iii) responding to a predetermined track status for a first storage device track by transferring corresponding data from the storage buffer to the first storage device.

The Examiner asserts that the bodies of both claims are the same subject matter described as a method (in the parent) and a means plus function ("step for" in the instant application). Therefor the bodies of the claims are viewed as obvious variations of the same invention.

As noted above the parent application, claims a storage buffer. The Examiner states for the record, that cache (as claimed in the instant application) is a synonym for storage buffer and imparts not extra limitations or functionality. Therefor a system implementing a cache is ultimately a highly obvious variation of a the same system implementing a storage buffer.

Applicant has specified that the first storage device is a standard storage device. Official Notice is given that the use of a standard storage device being used as a first storage device is well known in the computer arts. Standardization allows easy replacement and procurement of disks. Standardization further allows uniformity

between devices. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to implement the first storage device as a standard storage device.

Applicant has specified that the second storage device is a BCV mirror storage device. Official Notice is given that is well known for the second device a mirroring back up system to be a mirror storage device. Using a mirror storage device in a mirroring system allows the system to store the mirrored data. Thus it would have been obvious to one of ordinary skill in the art use a mirrored storage device in a mirrored storage system thus allowing the mirrored system to operate properly.

In summary, for the above reasons, the Examiner views these claims to constitute obvious-type, non-statutory double patenting.

#### *Rejections under 35 USC §101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 34-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As presented, the claims are drawn to a computer program per se and are not limited to the practical application of the program operating in a computer system. Application is advised to amend line 13 of the preamble to recite "..., a data recovery program *stored on a computer readable medium which when executed by a processor restores data in the ...*".

*Allowable Subject Matter*

The following subject matter, if presented in claims which overcome the above rejections, is found to be allowable in combination with all subject of the current claims. Applicant is advised that any modification to the claims which changes the scope of the claims may jeopardize this indication of allowable subject matter.

*A) attaching the second storage device in a write-disabled state to the first storage device,*

*B) identifying tracks to be restored from the second storage device to the first storage device, and*

*C) initiating concurrent restoration and updating of the data by:*

*i) copying the data from the identified tracks in the second data storage device to the storage buffer in response to the information in the first track identification table,*

*ii) transferring update data received from the host to the buffer storage device, and*

*iii) responding to a predetermined track status for a first storage device track by transferring corresponding data from the storage buffer to the first storage device*

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryce P Bonzo whose telephone number is (703) 305-

4834 while at the Arlington Campus or (571) 272-3655 upon moving to the Alexandria Campus. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713 while at the Arlington Campus or (571) 272-3645 upon moving to the Alexandria Campus. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bryce P Bonzo  
Examiner  
Art Unit 2114

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